507103194 01/31/2022

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| KURT A. JACOBS | 11/30/2021 |
| JONATHAN E. HOFFMAN | 12/12/2021 |

RECEIVING PARTY DATA

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| City: | WASHINGTON |
| State/Country: | D.C. |
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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 17504238 |

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| ATTORNEY DOCKET NUMBER: ARL 21-18E | | |
|------------------------------------|-------------------|--|
| NAME OF SUBMITTER: | NADINE L. LOMAN | |
| SIGNATURE: | /Nadine L. Loman/ | |
| DATE SIGNED: | 01/31/2022 | |

Total Attachments: 2

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PATENT 507103194 REEL: 058830 FRAME: 0489

ASSIGNMENT AND AGREEMENT

Title of Invention: A Polariton-Stabilized Solid-State Spin Clock Inventor(s): Dirk R. Englund, Matthew E. Trusheim, Kurt A. Jacobs, Jonathan E. Hoffman, Donald Fahey Date Declaration Executed: Application Serial No.: 17/504,238 Filing Date: 10/18/2021 Docket No.: ARL 21-18E I, the undersigned inventor, in consideration of the rights of the Government of the United States acquired by virtue of circumstances under which the above-identified invention was made, hereby: 1. Assign to the Government of the United States, as represented by the Secretary of the Army, my entire right, title, and interest throughout the United States, its Territories, Possessions, and Puerto Rico, in and to the above-entitled invention and application for patent and all Letters Patent issuing thereon, and any continuation or division of said application and any reissue or extension of said Letters Patent. 2. Agree to assign to the Government upon its request, title and interest in the invention in those foreign countries in which the Government, within eight months of the filing of the United States application for patent, determines to cause an application to be filed; provided that if the Government determines not to cause an application to be filed in any particular foreign country or fails to make such a determination, within the said eight months, all right, title and interest in the invention in such foreign country shall remain in me, subject to a nonexclusive, irrevocable, royaltyfree license to the Government in any patent in which may issue on the invention in such foreign country, including the power to issue sublicenses for use in behalf of the Government and/or furtherance of the foreign policies of the Government. 3. Agree to provide any further information within my knowledge and to execute any further documents necessary to the prosecution of patent applications on the invention, the prosecution and settlement of interferences and recording of title to patent applications and patents issuing thereon.

| Signature of Inventor: JACOBS.KURT.AARC | COBS.KURT.AARON.1515137625 Digitally signed by JACOBS.KURT.AARON.1515137625 Date: 2021.11.29 13:58:25 -05'00' | | |
|---|---|-----------------------------|--|
| (First name) | (Middle Initial) | (Last Name) | |
| Duty Address: Army Research Laboratory, Adelg (Locality) | phi, Montgomery (County) | Maryland (State) | |
| Date: 11/29/2021 Typed name | of Inventor: Kurt A. Jacob | s | |
| *******(n | otarizing preferred)****** | | |
| State of: | | | |
| County of:) [place wher | e acknowledgement is taken] | | |
| On the above date known to a foregoing instrument duly appeared before me an In witness whereof I hereunto set my hand and of | d acknowledged to me that the sa | | |
| | (Printed or typewritten name | e of notary public) | |
| (SEAL) | (Signature of notary public) | | |
| (OLIAL) | My Commission expires on | | |
| Signature of Inventor: HOFFMAN.JONATHAN.E.15055 | 42963 Digitally signed by HOFFMAN. Date: 2022.01.27 12 37.37 - 05 | JONATHAN.E.1505542963 00 | |

Page 1 of 2

| | (First name) | (Middle Initial) | (Last Name) |
|---------------------|---|--|---------------------|
| Duty Address: Arm | y Research Laboratory, Adelphi, (Locality) | Montgomery (County) | Maryland (State) |
| Date: 01/27/2022 | Typed name of | Inventor: Jonathan E. Hoff | fman |
| State of: | , | rizing preferred)******** cknowledgement is taken] | |
| foregoing instrumen | | to be the individual described in cknowledged to me that the same al seal. | |
| | | (Printed or typewritten name of | f notary public) |
| (SEAL) | | (Signature of notary public) | |
| | | My Commission expires on | |